

Claims

1. A method in a computerised system adapted for processing data associated with real world entities based on objects
5 representing the real world entities, the method comprising:
creating at least one formal instance, the at least one formal instance containing information regarding instantiation of at least one object; and

10 associating the at least one formal instance with one or more formal instances or groups of formal instances based on information of the type of said at least one object or the at least one formal instance.

15 2. A method as claimed in claim 1, comprising a further step of instantiation of the at least one object based on the information contained in the at least one formal instance and on information regarding at least one group with which the said at least one instance associates.

20 3. A method as claimed in claim 2, wherein the step of instantiation comprises creation of at least one real instance to be used by the computer system in said processing of data.

25 4. A method as claimed in claim 1, comprising creation of a plurality of groups of formal instances, the different groups of formal instances representing different types of objects.

30 5. A method as claimed in claim 4, wherein the groups are based on features of the real world entities represented by the objects.

6. A method as claimed in claim 4, wherein a group is based on functional features of the real world entities and another group is based on location of the real world entities.

5 7. A method as claimed in claim 4, wherein the different groups of formal instances are arranged in structures based on the type of the objects the individual groups associate with.

10 8. A method as claimed in claim 1, wherein a formal instance is associated with a plurality of different groups of formal instances based on the type of the object the formal instance associates with.

15 9. A method as claimed in claim 1, wherein at least one of the objects associates with at least one aspect.

10 10. A method as claimed in claim 1, wherein at least one of the formal instances associates with at least one aspect.

20 11. A method as claimed in claim 9, comprising the step of changing the content of a set of aspects.

12. A method as claimed in claim 9, wherein the at least one aspect is inherited.

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13. A method as claimed in claim 7, wherein the structures describe the relations between different groups of formal instances.

30 14. A method as claimed in claim 1, wherein a formal instance represents a group of formal instances.

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15. A method as claimed in claim 1, wherein selected formal instances or all formal instances of a group of formal instances represent said group of formal instances.

5 16. A method as claimed in claim 2, wherein instantiation of an object type results in instantiation of at least two objects associated with said object type.

10 17. A method as claimed in claim 16, wherein the objects to be instantiated are instantiated based on formal instances that belong to different groups of formal instances.

15 18. A method as claimed in claim 2, wherein instantiation of a composite object type results in instantiation of a group of objects.

20 19. A method as claimed in claim 1, wherein a formal instance contains a description how to make changes to aspects of the objects to be instantiated.

25 20. A method as claimed in claim 1, wherein the computerised system locates an object type indicative of an object to be instantiated, locates a formal instance in a first structure group describing the instantiation of the object, proceeds to create real instances out of all formal instances in said first structure group and other structure groups that are associated with said first structure group.

30 *Sub A1* 21. A method as claimed in any preceding claim, wherein the computerised system controls operation of a real world entity based on at least one object representing the entity and instantiated based on information contained in a formal instance.

22. A computer program comprising program code means for performing any of steps of claim 1 when run on a computer.

5 23. A computer program as claimed in claim 22, wherein the program code means are stored in a computer readable medium.

24. Use of a computer program as claimed in claim 22 for controlling operation of real world entities.

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25. A method of controlling real world entities by means of a computerised control system based on objects representing the real world entities, the method comprising:

15 creating a formal instance, the formal instance containing information regarding instantiation of at least one object;

placing the formal instance in one or more groups of formal instances, the selected group or groups being indicative of the type of said at least one object;

20 initiating instantiation of an object that is required by the control operations, the object being associated with the created formal instance, wherein the step of initiation comprises obtaining information from the formal instance; and

25 instantiating the object based on said information and also information regarding the group or groups the formal instance is placed in.

26. A method for instantiation of an object that represents a real world entity, comprising:

30 generating a formal instance describing the instantiation of the object;

placing the formal instance into one or more groups of formal instances based on the type of the object; and

instantiating the object based on information in the formal instance and also on information of the type of the object.

5 27. A data processing system comprising:

a data processor; and

storage means for storing data, at least a part of said data being stored as objects that can be instantiated for use by the data processor,

10 wherein the arrangement is such that at least a part of the objects are instantiated based on information contained in associated formal instances and information regarding the type of the object to be instantiated.

15 28. A data processing system as claimed in claim 26 arranged to control operation of real world entities that are represented by objects to the system.

20 29. A data entity for object oriented data processing that is based on use of a plurality of objects, wherein the data entity contains information regarding instantiation of one or more objects and is included in at least one group of data entities, each group of data entities being indicative of different characteristic features of the objects.

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30. A method in a computerised system adapted for processing data associated with real world entities based on objects representing the real world entities, the method comprising:

30 creating at least one formal instance, the at least one formal instance containing information regarding instantiation of at least one object; and

associating the at least one formal instance with one or more formal instances or groups of formal instances based on

information of the type of said at least one object or the at least one formal instance; and

controlling by the computerised system operation of a real world entity based on at least one object representing the real world entity and instantiated based on information
5 contained in a formal instance associated with said one or more formal instances or groups of formal instances.

FOOTNOTES